What is claimed is:

- 1. A process for the preparation of a recombinant polypeptide, comprising the steps of
 - a) fermenting a prokaryotic host cell comprising a periplasm and being transformed with a recombinant expression system capable of effecting secretion of the polypeptide into the periplasm, which fermentation is performed in a fermentation medium under conditions such that the polypeptide is secreted into the periplasm of the host cell, and
 - b) interrupting the further processing of the fermentation harvest broth and maintaining it under defined conditions of temperature and pH prior to extraction.
- 2. A process according to claim 1, wherein the further processing of the fermentation harvest broth is interrupted for a period of at least about one hour.
- A process according to any preceding claim, wherein the further processing of the fermentation harvest broth is interrupted for a period of about one hour to about 72 hours.
- A process according to any preceding claim, wherein the further processing of the fermentation harvest broth is interrupted for a period of about 12 hours to about 48 hours.
- 5. A process according to any preceding claim, wherein the further processing of the fermentation harvest broth is interrupted for a period of about 12 hours, about 24 hours or about 48 hours.
- 6. A process according to any preceding claim, wherein the interruption of the further processing of the fermentation harvest broth is performed at a temperature of about 2°C to about 65°C.
- 7. A process according to any preceding claim, wherein the interruption of the further processing of the fermentation harvest broth is performed at a temperature of about 4°C to about 25°C.

- 8. A process according to any preceding claim, wherein the interruption of the further processing of the fermentation harvest broth is performed at a temperature of about 4°C, about 10°C, about 15°C, about 20°C or about 25°C.
- 9. A process according to any preceding claim, wherein the pH value of the fermentation harvest broth is maintained between about 4 to about 10 during step b).
- 10. A process according to any preceding claim, wherein the pH value of the fermentation harvest broth is maintained between about 5 to about 9 during step b).
- 11. A process according to any preceding claim, wherein the pH value of the fermentation harvest broth is maintained between about 6 to about 8 during step b).
- 12. A process according to any preceding claim, wherein the pH value of the fermentation harvest broth is maintained at about 7 during step b).
- 13. A process according to any preceding claim, wherein the further processing of the fermentation harvest broth is interrupted for a period of about 12 hours, about 24 hours or about 48 hours at a temperature of about 4°C, about 10°C, about 15°C, about 20°C or about 25°C.
- 14. A process according to any preceding claim, wherein the fermentation harvest broth is concentrated prior to step b).
- 15. A process according to any preceding claim, wherein the fermentation harvest broth is concentrated by centrifugation or microfiltration prior to step b).
- 16. A process according to any preceding claim, wherein step b) is performed in the fermenter.
- 17. A process according to any preceding claim, wherein the prokaryotic host cell is a Gram-negative bacterium.

- 18. A process according to claim 17, wherein the Gram-negative bacterium is selected from the group consisting of Escherichia sp., Pseudomonas sp., Enterobacter sp., Erwinia sp., Campylobacter sp., Proteus sp., Aeromonas sp. and Vitreoscilla sp.
- 19. A process according to claim 17, wherein the Gram-negative bacterium is *Escherichia coli*.
- 20. A process according to any preceding claim, wherein the recombinant polypeptide is an antibody, a hormone or an immunomodulating agent.
- 21. A process according to any preceding claim, wherein the recombinant polypeptide is a growth hormone, a growth factor, an interferon, a cytokine, an enzyme, an enzyme inhibitor or an antibody fragment.
- 22. A process according to any preceding claim, wherein the recombinant polypeptide is a Fab-fragment, human growth hormone, interferon alpha-2b or granulocyte colony-stimulating factor.
- 23. A process substantially as herein described with particular reference to the examples.